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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,701

04/03/2006

Andreas Seifert

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2956

24628

7590

11/26/2008

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EXAMINER

SHAHER, RICKY D

ART UNIT

PAPER NUMBER

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,701	<b>Applicant(s)</b> SEIFERT ET AL.	
	<b>Examiner</b> Ricky D. Shafer	<b>Art Unit</b> 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29-66 is/are pending in the application.
- 4a) Of the above claim(s) 29,30,32,35 and 37-66 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31,33,34 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/08/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Applicant's election of Group II (claims 34 and 36) in the reply filed on 07/28/2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 29, 30, 32, 35 and 37-66 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 07/28/2008.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Harding ('382).

Harding discloses a multifaceted mirror structure having a plurality of mirror facets (12-30), wherein the mirror facets are formed by recessing or machining a reflecting optical surface into or on the mirror facet (see column 1, lines 45-68), wherein the optical surface has a tilting angle (see Fig. 2), and wherein the tilting angle is the angle between the normals of the optical surface and the base or reference surface of the mirror facet. Note figures 1-3 along with the associated description thereof.

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5. Claims 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Dourte et al ('913).

Dourte et al discloses a multifaceted mirror structure having a plurality of mirror facets (28), wherein the mirror facets are formed by recessing or machining a reflecting optical surface into or on the mirror facet (see column 12, lines 38-42), wherein the optical surface has a tilting angle (see figures 7, 8 and 13-22), and wherein the tilting angle is the angle between the normals of the optical surface and the base or reference surface of the mirror facet. Note figures 6-22 along with the associated description thereof.

6. Claims 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Tucker ('380).

Tucker discloses a multifaceted mirror structure having a plurality of mirror facets (12), wherein the mirror facets are formed by recessing or machining a reflecting optical surface into or on the mirror facet (see column 1, line 45 to column 2, line 15), wherein the optical surface has a tilting angle (see Fig. 1), and wherein the tilting angle is the angle between the normals of the optical surface and the base or reference surface of the mirror facet. Note figures 1-3 along with the associated description thereof.

7. Claims 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Horian ('469).

Horian discloses a multifaceted mirror structure having a plurality of mirror facets (44), wherein the mirror facets are formed by recessing or machining a reflecting optical surface into or on the mirror facet (see column 4, lines 1-20), wherein the optical surface has a tilting angle (see Fig. 7), and wherein the tilting angle is the angle between the normals of the optical surface

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and the base or reference surface of the mirror facet. Note figures 3, 4, 6 and 7 along with the associated description thereof.

8. Claims 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al ('884).

Lee et al discloses a multifaceted mirror structure having a plurality of mirror facets (22a), wherein the mirror facets are formed by recessing or machining a reflecting optical surface into or on the mirror facet (see column 4, lines 42-60), wherein the optical surface has a tilting angle (see figures 1, 2, 3A and 7), and wherein the tilting angle is the angle between the normals of the optical surface and the base or reference surface of the mirror facet. Note figures 1-7 along with the associated description thereof.

9. Claims 31 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Takino ('051).

Takino discloses a multifaceted mirror structure having a plurality of mirror facets (10), wherein the mirror facets are formed by recessing or machining a reflecting optical surface into or on the mirror facet (see column 5, lines 16-34 and column 7, line 53 to column 8, line 31), wherein the optical surface has a tilting angle (i.e., see figures 5 and 7), and wherein the tilting angle is the angle between the normals of the optical surface and the base or reference surface of the mirror facet. Note figures 5-16 along with the associated description thereof.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. Claims 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harding ('382), Dourte et al ('913), Tucker ('380), Horian ('469), Lee et al ('884) or Takino ('051).

Harding, Dourte et al, Tucker, Horian, Lee et al and Takino each disclose all of the subject matter claimed, note the above explanation, except for explicitly stating that the tilting angle has an accuracy of less than 3 arc seconds.

It is well known to machine or position an optical element to an accuracy of less than 3 arc seconds in the same field of endeavor for the purpose of obtaining a tilt angle of interest.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tilt angle of Harding, Dourte et al, Tucker, Horian, Lee et al or Takino to include an accuracy of less than 3 arc seconds in order to meet user specifications.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricky D. Shafer whose telephone number is (571) 272-2320.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RDS

November 22, 2008

/Ricky D. Shafer/  
Primary Examiner  
Art Unit 2872